

EXHIBIT 20

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Apple's control over the App Store is no longer sustainable

Cupertino's restrictive policies illustrate the need for regulation.

Romain Dillet @romaindillet / 11:53 am EDT • October 21, 2019

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ast week, Apple caved to the Chinese government and **pulled** an app called **HKmap.live** that was being used by Hong Kong protestors to crowdsource the location of police forces.

While **Apple** CEO Tim Cook **defended Apple's stance**, the move is a reminder that Apple is the only judge and jury regarding what's acceptable in the App Store — but as mobile devices are integrated into more aspects of our lives, it's getting harder to justify such tight control over their software.

The current state of the App Store is a great example of the risks of running a marketplace that becomes too big. It also shows that we can expect wide-ranging marketplace regulation in the near future.

The App Store as video game console

Before Apple introduced the App Store in 2008, companies could distribute third-party apps and web services without oversight; consumers could buy floppy disks, download software from the internet or connect to any website.

But with the App Store, Apple decided to control the user experience from approval to distribution. And it has been a



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massive economic success. There are more than [2.2 million apps](#) in the App Store that have generated over [130 billion](#) downloads.

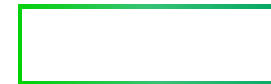
In many ways, the iOS app ecosystem works more like a video game console than a computer — developers submit games and apps to the maker of the platform, which starts a review process to see if third-party content complies with guidelines. If so, developers may list their game or app on the platform.

The PlayStation 4 has been around for six years and Sony has approved [2,294 games](#) in total, around 380 games per year. Due to the sheer size of the App Store, Apple has faced challenges that console manufacturers have never faced.

Review guidelines are poorly enforced

Apple has written the [App Store Review Guidelines](#), a lengthy document intended to answer all questions about what's acceptable — but those rules are not enforced consistently, and the App Store isn't a level playing field, discrepancies I've [pointed out](#) in the past.

As an example: rule 4.3, titled “Spam:”



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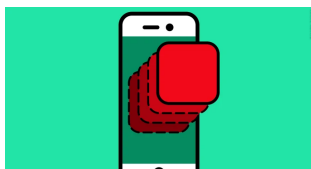
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Don't create multiple Bundle IDs of the same app. If your app has different versions for specific locations, sports teams, universities, etc., consider submitting a single app and provide the variations using in-app purchase. Also avoid piling on to a category that is already saturated; the App Store has enough fart, burp, flashlight, and Kama Sutra apps already. Spamming the store may lead to your removal from the Developer Program.

And yet, customers can find plenty of categories with app duplicates and companies trying to game the App Store. For example, I [found](#) 13 different VoIP apps released by four companies. Each company had multiple versions of the same app in order to pick different names, keywords and categories to optimize search results.

Virtual phone number apps are gaming the App Store with duplicates



If you've searched the App Store for an app to get a second phone number, chances are you found dozens of apps with very little differences. A handful of companies are spamming the App Store with duplicated apps. This strategy is against Apple's rules. The App Store Review Guidelines are detailed rules that define what ... Continue

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When I pointed this out to Apple, they [removed most of the duplicates](#) in less than 24 hours, but it can't remain the single source of truth if it doesn't enforce its own rules properly.

Similarly, as Under the Radar [recently pointed out](#), some developers will always find ways to abuse the App Store. For instance, shady developers acquire apps with a lot of positive ratings, transfer those apps to their own developer account, push updates with expensive weekly recurring subscriptions and take advantage of Apple's obscure process to cancel subscriptions.

Economic interests first

In its most recent [earnings release](#), Apple reported that Greater China represented 17% of the company's revenue. The company also manufactures the vast majority of its products in Chinese factories. Apple has a lot to lose in China.

That's why Apple's actions in China don't reflect the company's principles. Cupertino claims to [care deeply about privacy](#), but it uploads iCloud user data to [a state-owned mobile operator](#) in China.



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The company says that it cares deeply about privacy but uploads iCloud user data to a state-owned mobile operator in China

Apple first removed HKmap.live from the App Store, then authorized the app again before removing it one more time. The only thing that changed between the first second removal is that the Chinese government started [openly criticizing Apple](#) about that specific case.

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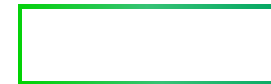
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subscribers with an urgent request: help us find more paying users

Connie Loizos

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Josh Gross

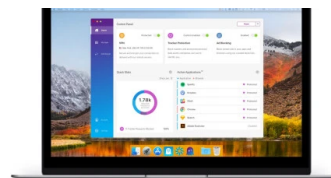
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Ghostery launches Midnight for privacy and ad-blocking beyond the browser

Anthony Ha

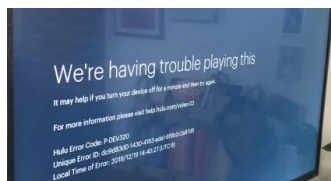
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Hulu is down

Megan Rose Dickey

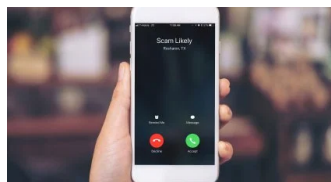
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Robocall-crushing TRACED act passes Senate and heads to Oval Office

Devin Coldewey

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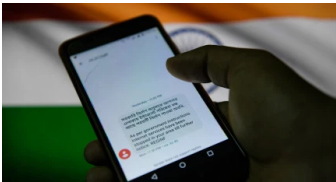
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Manish Singh

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TC Video

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Ned Desmond

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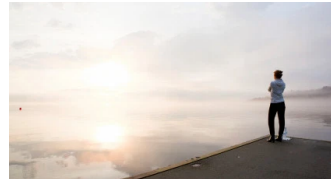
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A look ahead at blockchain's next decade

Jonathan Johnson

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HaptX grabs \$12 million to build a glove crammed with sensors

Lucas Matney

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Daily Crunch: Facebook acquires a cloud gaming startup

Anthony Ha

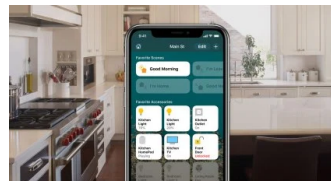
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Romain Dillet

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**1,500 Ring passwords have been**

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found on the dark web

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Universal Acceptance is the first-mover advantage that may be worth billions

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Despite winter's chill, the Northeast's tech ecosystem is white-hot

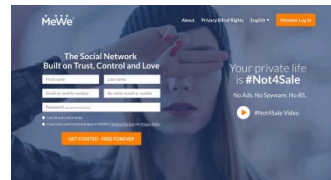
Alex Wilhelm

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Subscription-based social network MeWe launches premium features and a business product

Jonathan Shieber

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Google buys game developer Typhoon Studios

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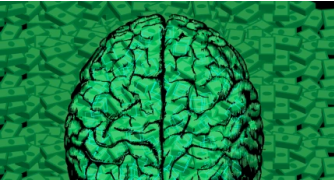
Levelset raises \$30 million to improve money management for contractors in construction

Jonathan Shieber
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Leapfin raises \$4.5M to help companies track revenue while keeping its own profitability in view

Alex Wilhelm
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